Partnerships to Support Rural Utah's Secondary Science Teachers

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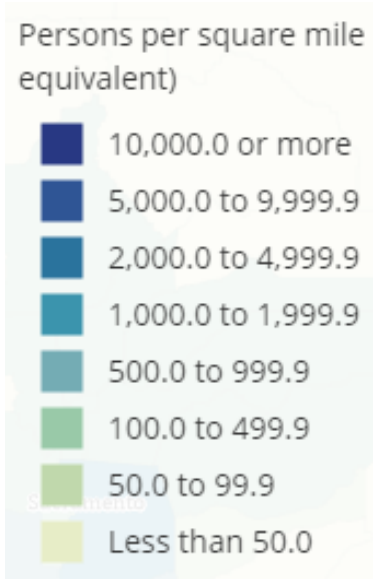
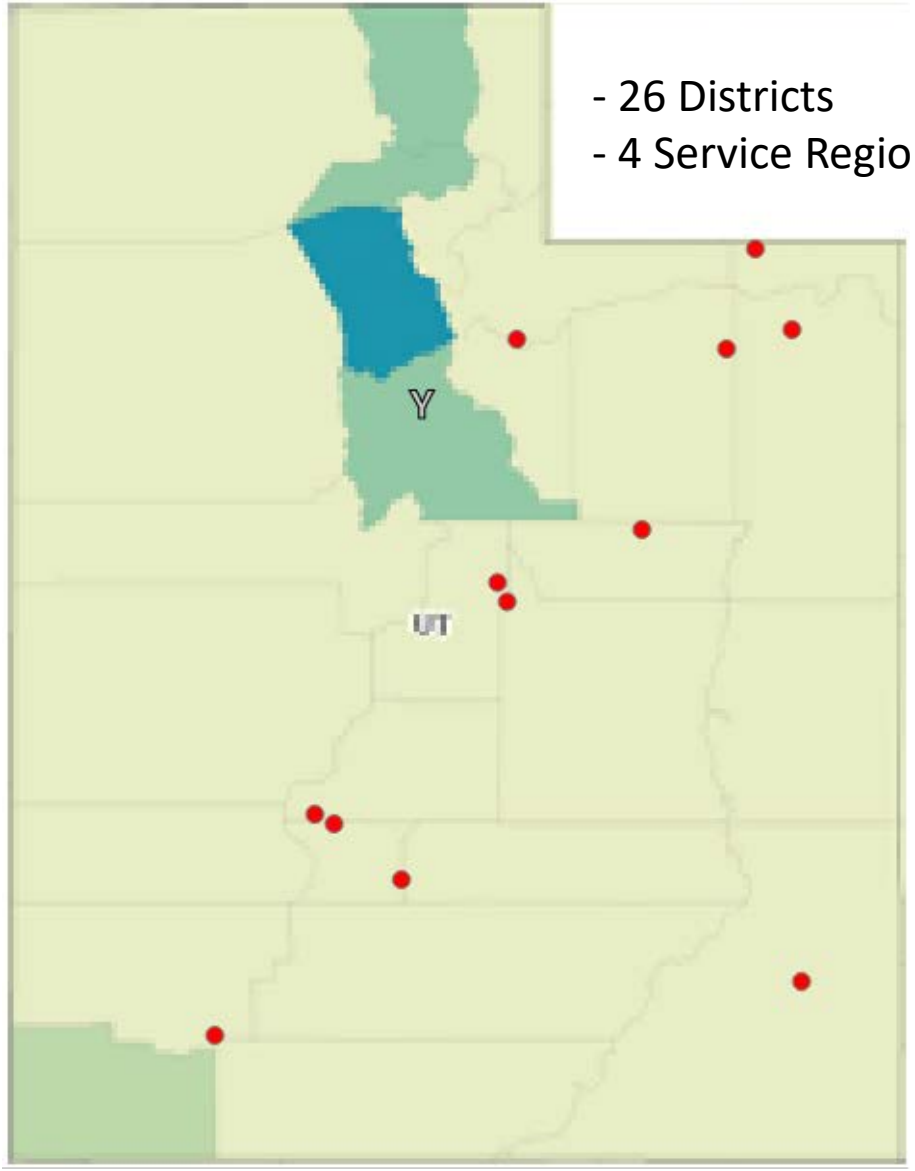
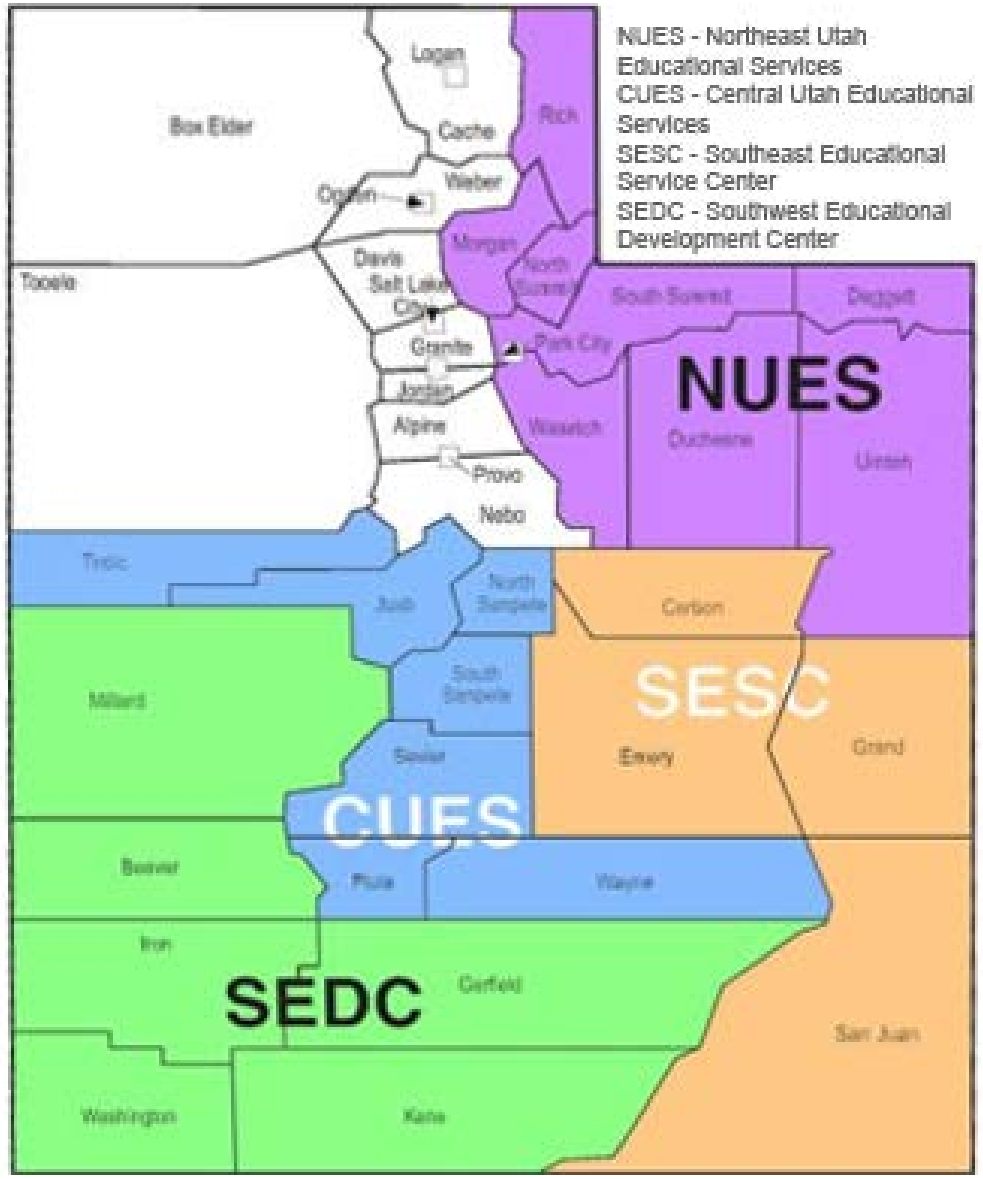
The 3D-RST program is supported by the National Science Foundation under grant #DRL-2101383.

Rural Utah

- 26 Districts
- 4 Service Regions







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Shared Goals for Partnership

- Increase capacity for 3D Science Teaching among Utah's rural secondary science teachers
  - In response to updated standards adopted in 2021, based on the *Framework for K-12 Science Education*
- Create and/or develop professional support networks among teachers who are often isolated, teaching out of their certification area, dealing with too many preps, or all the above
- Philosophy of respecting the expertise and experience of all involved

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Unique Goals for Partnership

Their goals:

- Increase teachers' skills and classroom success
- Increase retention of teachers in high-need schools
- Connect ARL teachers to the course they need for licensure

Our goal:

- Understand whether, how, and why Technology-Mediated Lesson Study supports changed teaching practices and professional connection

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Recent Publication (Open Access)

Hudson, M., Leary, H., Longhurst, M., Stowers, J., Poulsen, T., Smith, C. and Sansom, R.L. (2024), "Technology-mediated lesson study: a step-by-step guide", *International Journal for Lesson and Learning Studies 13* (5), pp. 1-14.

https://doi.org/10.1108/IJLLS-07-2023-0094

PDF File

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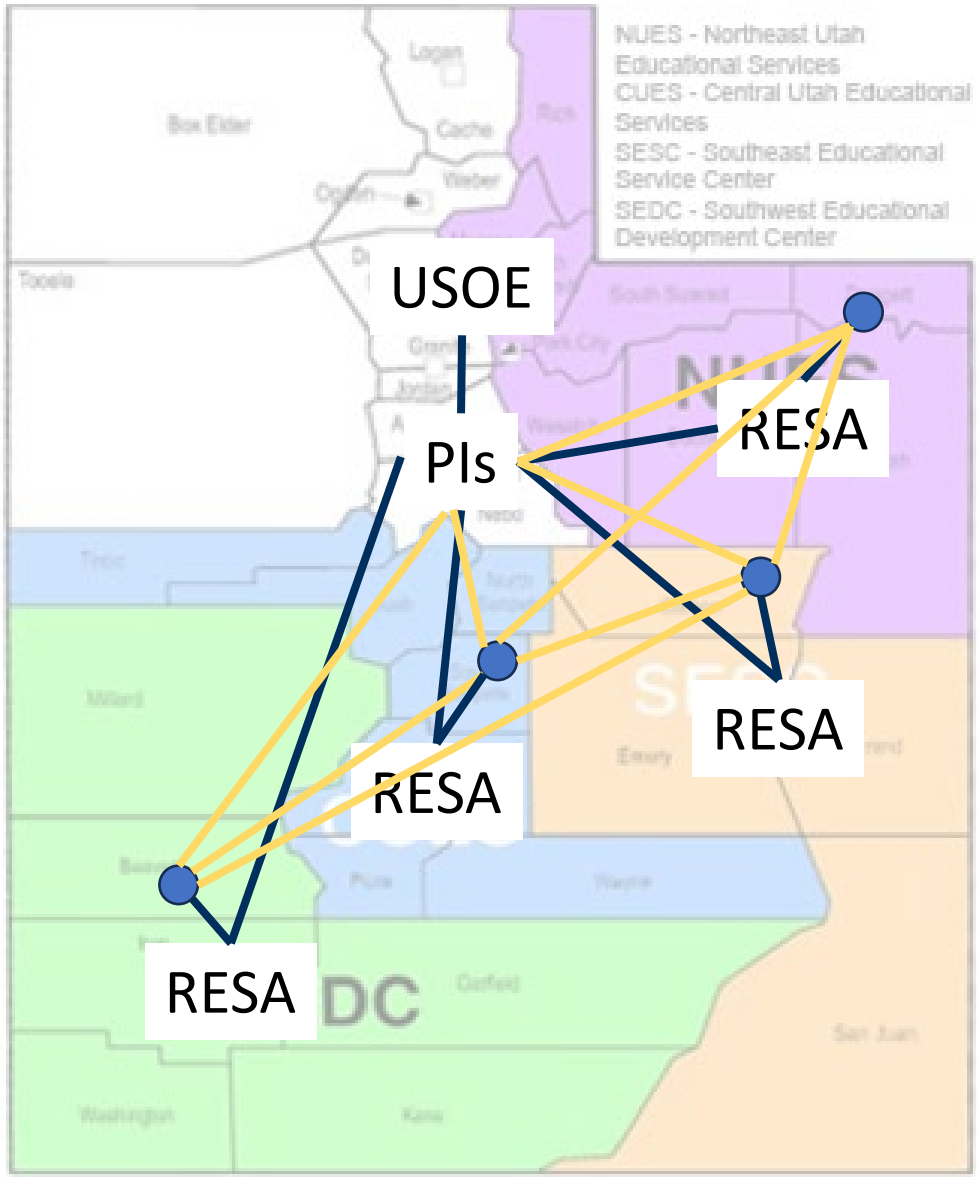
Key Players

- PI Team (I am the primary point of contact, others fill in occasionally)
- Regional Educational Service Agency Directors
- Rural Science Teacher Leaders and Teacher Participants
- Utah State Office of Education Science Specialist



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Partnership Activities

- We provide PD for teachers that they can't provide by themselves while building capacity among their teachers to continue that effort after the grant ends
- They help connect us with teachers and recruit participants
- We report back annually on how the project is going

- I have to be there: URSA conference, Regional workshops, Board meetings, Emails & Phone calls
- We need multiple layers of connections and pathways

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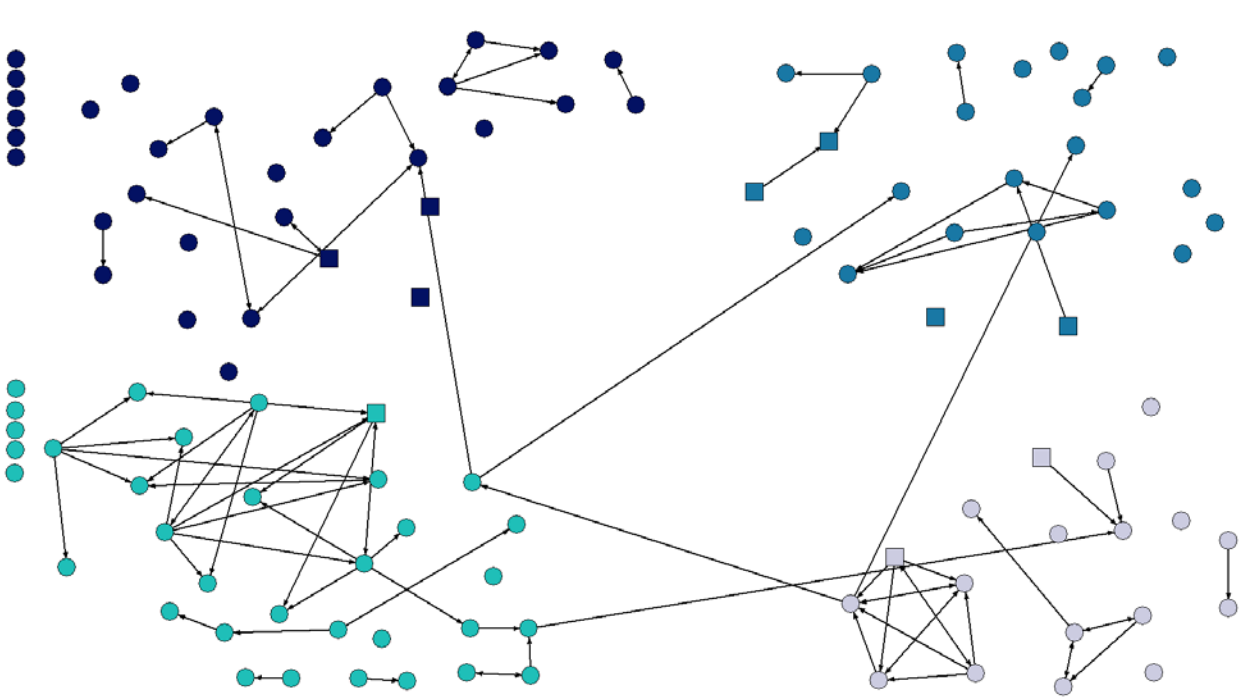
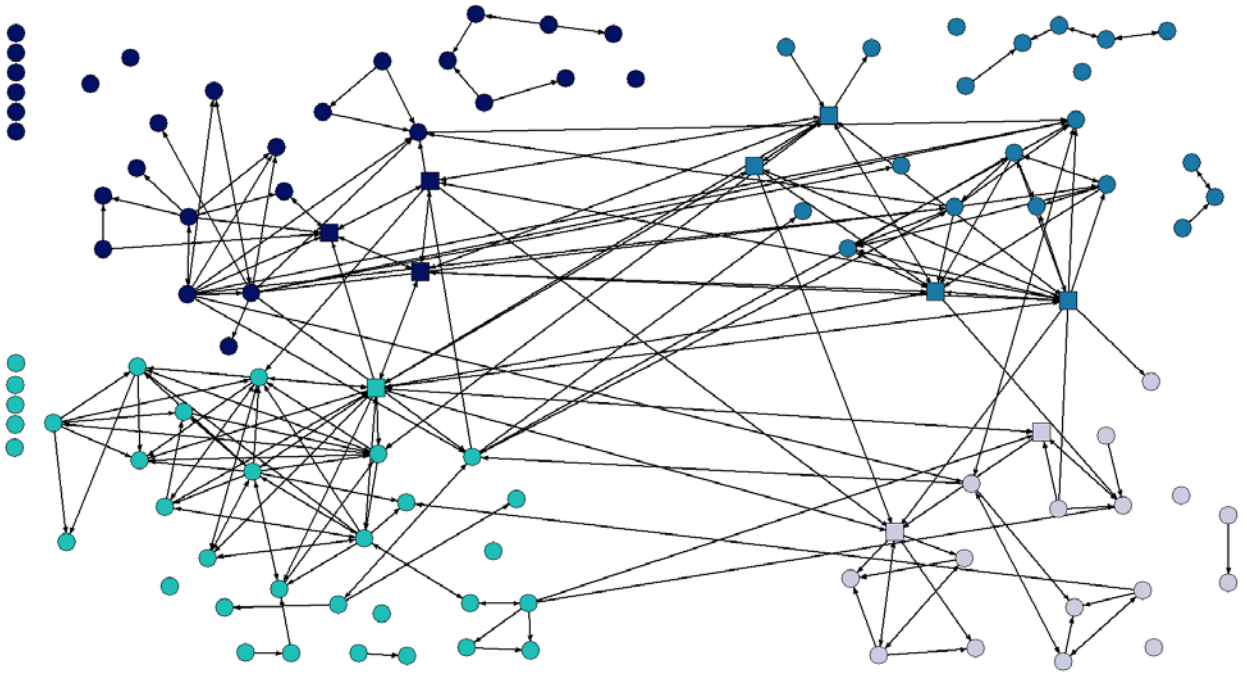
Partnership Supports Research



2022



2023

Advice Network for Rural Utah Chemistry and Biology Teachers

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Rural Nature of Partnership

Strengths

- Community-embedded teachers who have a deep understanding of their students' experiences
- Resourceful and creative teachers with wide-ranging scientific backgrounds
- Rich opportunities for place-based science teaching and learning
- Deep need and desire for science PD by teachers and administrators

Challenges

- Relationships with outsiders are hard to build—we emphasize building relationships among the teachers
- Long distances make in-person work difficult and rare—we use technology to facilitate most meetings
- Varying science/3D science knowledge—we build teams with different backgrounds

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Thank you!

Rebecca Sansom (PI)

Max Longhurst, Josh Stowers, Heather Leary (Co-PIs)

Michelle Hudson (Postdoc)

Tracy Poulsen, Clara Smith, Austin Moore (Grad)

Bailey Broadhead (Undergrad)

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